## REMARKS

The Final Office Action of March 27, 2007, has been carefully reviewed, and in view of the above amendments and the following remarks, reconsideration and allowance of the pending claims are respectfully requested.

As set forth above, claim 1 recites that: 1) the radiant tube heater comprises an elongate tube and a burner where a fuel is combusted with air and the hot combustion products pass through said spiral tube assembly; (2) the spiral tube assembly comprises a straight portion and a spiral portion downstream of the straight portion and arranged around the straight portion; and (3) the air flow generating means is arranged to generate an air flow over both the radiant tube heater and the spiral tube assembly, thereby providing a hot air output stream from the heater assembly. The claimed invention advantageously cools combustion gas in the straight portion -- upstream of the spiral portion such that the hot gas passes therethrough first, thereby allowing the spiral portion to be constructed of a material with a lower temperature tolerance since gas passing through the spiral portion will be cooler than the gas passing through the straight portion. By way of illustration and with reference to Figure 4, gas leaving tube 16 is still hot and tube 29 is made from a suitable heat resistant material. The gas has cooled by the time it passes through tube 29 and enters spiral tube 31. Thus, spiral tube 31 can be made from a flexible material that doesn't need not be high temperature resistant.

The primary reference upon which the Examiner relies, *Mutchler*, is directed to an air heating apparatus having a housing 3 with a lower partition plate 4 to provide an air inlet plenum 6 having air inlets 7 and a lower exhaust outlet 8. Vertically disposed in the housing 3 is a combustion drum 13 with a burner 18 disposed thereabove. The hot exhaust gases exiting through outlets 24 in drum 13

are conducted downwardly through a plurality of heat exchanger tubes 26. Thereafter, the gas enters a annular outlet manifold 27 and an exhaust conduit 28 connects the manifold 27 with the outlet 8.

In rejecting the pending claims over *Mutchler*, the Examiner has relied upon exhaust conduit 28 as corresponding to the claimed spiral portion and heat exchanger tube 26 as corresponding to the claimed straight portion. Applicant respectfully traverses this rejection in that exhaust tube 28 is not a spiral tube, but an L-shaped exhaust conduit. Merriam-Webster's online dictionary defines spiral as: 1a: the path of a point in a plane moving around a central point while continuously receding from or approaching it; b: a three-dimensional curve (as a helix) with one or more turns about an axis. *Mutchler* does not disclose or suggest that conduit 28 may be spiral in configuration, and likely would not suggest such a modification, since fan 33 and duct 34 would appear to physically prevent the use of a spiral tube to connect manifold 27 to outlet 8.

The secondary reference upon which the Examiner relies, *Romero*, is directed to a heat exchanger for reheating a secondary fluid such as a pool of fresh or sea water. *Romero* discloses a spiral heat exchanger 10 wound around a straight portion 14, wherein the spiral portion is located upstream of the straight portion 14. In contrast thereto, claims 1 and 21 recite a radiant tube heater having a straight portion and a spiral portion, the spiral portion being located downstream of the radiant tube heater and arranged around the straight portion.

*Romero* does not disclose a radiant tube heater for heating the primary fluid but merely suggests that the primary fluid is introduced through an inlet 12. Further, *Romero* does not disclose a spiral tube assembly separate and distinct from the radiant tube heater, as recited in claim 1. Accordingly, even if the teachings of

*Romero* were combined with the primary reference, Applicants respectfully contend that the claimed invention would not be rendered obvious.

The remaining claims depend either directly or indirectly from claims 1 and 21 and patentable based at least upon their dependence from the independent claim.

## CONCLUSION

In view of the above amendments and remarks, Applicant/s respectfully submit/s that the claims of the present application are now in condition for allowance, and an early indication of the same is earnestly solicited.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference would be helpful in resolving any remaining issues pertaining to this application; the Examiner is kindly invited to call the undersigned counsel for Applicant regarding the same.

Respectfully submitted,

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I hereby certify that this correspondence is being submitted by facsimile transmission to the commission for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, to the following facsimile number:

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